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Patent  
Attorney's Docket No. 013550-091

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Design Application of	)	
GRIGORY GRISHCHENKO et al.	)	BOX AF
Application No.: 09/267,383	)	
Filed: March 15, 1999	)	Group Art Unit: 3749
	)	Examiner: J. Lu
For: METHODS AND APPARATUS	)	
FOR CONVEYING CONTAINERS	)	
THROUGH AN OVEN TO PRODUCE	)	
HEAT-INSULATIVE FOAMED LAYERS	)	
THEREON	)	



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SECOND REQUEST FOR RECONSIDERATION

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

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In response to the Final Rejection dated September 7, 2000, applicants again point out that the alleged teaching reference, i.e., Whelan, fails to disclose or teach the presently claimed invention and, in fact, teaches away from the presently claimed invention.

In the presently claimed invention, an apparatus for producing heat-insulating composite paper containers includes an oven and a conveyor for conveying containers through the oven, to cause a foamable material to foam on a surface of each container. The conveyor includes a plurality of spaced apart holders for supporting respective containers. Importantly, each holder is configured to support its respective fabricated container in a loose manner, enabling the container to freely wobble relative to its holder. As a result, each holder will not make continuous contact with a point on its respective container, which could result in so much heat being conducted from that point that foaming would not properly occur there.

Claim 14, which recites such a configuration of the holders, has been rejected over Thiel et al. in view of Whelan.

Thiel et al. discloses a conveyor for passing containers through an oven to enable a heat sensitive substance to cure on the containers. As pointed out in the Official action, Thiel et al. "do not show spaced apart holders for supporting containers in a loose manner". That is not surprising, since Thiel et al. specify that the containers are to be held with a "particularly secure seating" on the endless belt (see column 3, lines 24-27 of Thiel et al.).

The Whelan patent discloses a much different type of apparatus than Thiel et al. Whereas Thiel et al. relies upon heat to cure a substance, Whelan relies upon ultraviolet light. As a result, it is necessary that the containers be exposed to uniform radiation along their entire length from ultraviolet lamps(see column 2, lines 2-4). It is necessary to maneuver the containers in a particular manner relative to the ultraviolet lamps to ensure that the ultraviolet radiation is uniformly applied. That is achieved in Whelan by rotating the containers as they pass by the lamps. Rotation is produced by rotating the holders (mandrels) on which the containers are mounted. In order for a rotating mandrel to be able to rotate its container in a manner achieving a uniform treatment with ultraviolet light, there must be a secure engagement between the mandrel and its container to produce frictional drive forces. That is confirmed by Whelan who states:

"... as it is necessary that the mandrel securely engage the object [container] to cause its rotation ..." (column 2, lines 19-20)

Whelan discloses various types of holders (see column 3, lines 37-43), but they all must have a common characteristic, i.e., they must grip the containers securely in order to frictionally rotate the containers. Such gripping is to be avoided in the presently claimed invention, as the holder would function as a heat sink to remove heat from the place(s) where it grips the container, and the thermally responsive treatment (i.e.,

foaming) would not properly occur. Whelan does not have to worry about that because he relies on ultraviolet radiation, not heat.

In summation, both Thiel et al. and Whelan disclose and teach a secure holding of containers, not a loose, freely wobbling relationship between the containers and holders as presently claimed. Such a loose, wobbling relationship would not be suited to Whelan, because the containers would not be properly rotated to achieve the required uniform ultraviolet treatment. Thus, not only does Whelan fail to disclose or teach a loose, wobbling relationship, he teaches away from it.

The Official action did not explain how Whelan is considered to teach a relationship wherein a container is loosely mounted on a holder so as to be capable of freely wobbling relative to the holder. Since that will be the main issue on appeal, it is respectfully requested that the basis for relying upon Whelan as a teaching of such a relationship be pointed out, if the rejection of claim 14 is to be maintained.

In any event, it is submitted that the present application is in condition for allowance.

Respectfully submitted,

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